

**Metro**

North County Combined Highway Corridors Study

Final Report



June 24, 2004

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**NORTH COUNTY
COMBINED HIGHWAY CORRIDORS STUDY
SR-14, SR-138, AND I-5**

Final Report

Project Sponsors:

Los Angeles County Metropolitan Transportation Authority
California Department of Transportation
County of Los Angeles
Cities of Lancaster, Los Angeles, Palmdale, and Santa Clarita
Southern California Association of Governments
Federal Highway Administration
Federal Transit Administration

June 2004

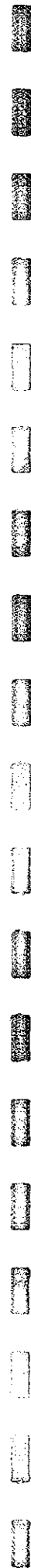




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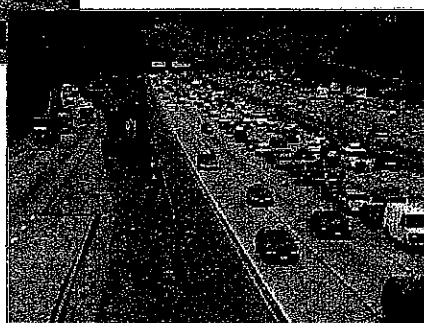
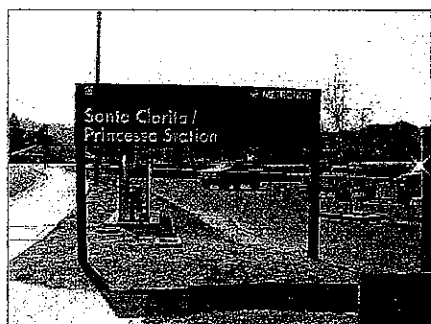
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EXECUTIVE SUMMARY

Overview

In August 2001, the North County Combined Highway Corridors Study was initiated to develop a multi-modal transportation plan for the northern portion of Los Angeles County, addressing both short-term (2010) and long-term (2025) requirements to accommodate a variety of trip purposes, including personal travel (highways and transit) and goods movement (trucks) within and through the Study Area (Exhibit ES.1).

The North County Combined Highway Corridors Study was conducted by the Los Angeles County Metropolitan Transportation Authority (MTA) in cooperation with the cities of Lancaster, Los Angeles, Palmdale, and Santa Clarita and the County of Los Angeles. For approximately two and a half years, a Technical Advisory Committee, or TAC, composed of representatives of the sponsoring agencies, Caltrans, the Southern California Association of Governments, and the Federal Highway and Transit Administrations, met monthly to review progress of the Study. The North County Transportation Coalition, composed of elected officials from Los Angeles County, North County

cities, and the California State Legislature, provided policy oversight for the study.

The North County Combined Highway Corridors Study was conducted in two phases. Part I, completed in January 2003, focused on the I-5 and SR-14 Corridors, targeting north-south circulation from the center of the Los Angeles region through the Study Area communities, northward up to the Kern County Line. Part II of the study began in April 2002 and was completed in December 2003, and focused on east-west circulation along the SR-138 Corridor. In this document, the North County Combined Highway Corridors Study, findings from Parts I and II are integrated into a single North County Corridors Plan.

Purpose and Need

The themes shown in Table ES.1, not necessarily in order of priority, emerged from *scoping* as critical to defining *purpose* and *need* for North Los Angeles County. Since transportation funding is limited, transportation strategies reflecting these themes have been structured to enhance funding prospects.

Exhibit ES.1: North County Combined Highway Corridors Study Project Area Map

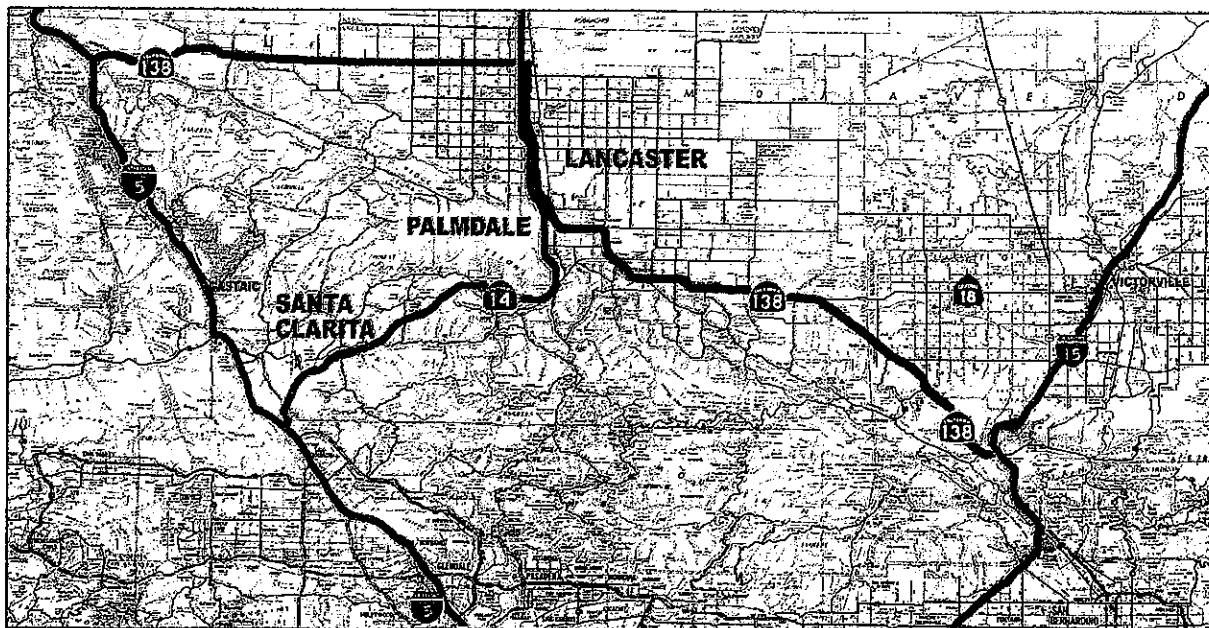


Table ES.1: North County Purpose and Need Themes

<ul style="list-style-type: none"> Substantially increased vehicle capacity is needed in each of the major highway corridors. Sufficient highway right-of-way should be reserved along I-5, SR-14, and SR-138 to develop new HOV lanes and truck lanes in response to emerging demand. Available roadway capacity is quickly being outstripped and programmed capacity improvements will be overwhelmed well before horizon year 2025. Delay on the I-5 and SR-14 is substantial today and will worsen in the coming years.
<ul style="list-style-type: none"> A package of early action transportation improvements (highway and transit) is needed within the context of long-range planning objectives.
<ul style="list-style-type: none"> Safety enhancements to existing roadways are needed and new, safer facilities must be built to reduce accident rates and fatalities. Widening, realignment, and traffic control along SR-138 appears particularly needed.
<ul style="list-style-type: none"> Upgraded regional multi-modal access to Palmdale and Southern California Logistics Airports is needed in anticipation of their emergence as Southern California commercial and cargo aviation hubs.
<ul style="list-style-type: none"> A semi-exclusive truck network is needed to avoid the capacity constraints and safety hazards inherent in a combined truck/auto highway system.
<ul style="list-style-type: none"> A semi-exclusive high occupancy vehicle (HOV)/bus network is needed to avoid the capacity constraints and safety hazards inherent in combining HOV/bus operations with mixed flow traffic.
<ul style="list-style-type: none"> New high capacity east-west connector routes linking I-5, SR-14 and I-15 are needed to meet future demand, provide a metropolitan bypass, and provide for movement between primary north-south corridors.
<ul style="list-style-type: none"> Alternatives are needed to the I-5 and SR-14 facilities to cope with emergencies. Among other things, new north-south route options should be studied for possible feasibility. The I-5 and SR-14 highways are lifelines of statewide and regional importance.

North County Corridors Plan

During Parts I and II of the North County Combined Highway Corridors Study, individual plans, or Locally Preferred Strategies (LPS), for the three North County corridors were developed. The plans were initially segregated based on their ability to serve their respective travel markets. Each corridor is unique in function, capacity, operational and safety issues. Broadly speaking, the I-5 is a *goods movement* corridor linking the Central Valley with the Ports of Los Angeles/Long Beach. In contrast, SR-14 may be generally described as a *commute* corridor with an anticipated tripling of the commute population. A key feature of the geography of the SR-138 makes it a *bypass* corridor which could help avoid congestion in the central region by routing traffic around congested Los Angeles freeways.

In the end, the three North County Corridors must function together to serve the collective transportation needs in northern Los Angeles County. Thus, the next logical step in the study was a systems analysis to examine the combined impacts of the three corridors and modify the three individual plans based on their collective synergies. The result is a fully integrated major

highway and transit investment along I-5, SR-14, and SR-138—approximately 250 miles of the most significant transportation facilities in northern Los Angeles County.

This integration of the three transportation corridor plans undertaken at the end of the North County Combined Highway Corridors Study—which included an analysis of future regional travel patterns along the integrated network—identified locations where the three individual LPSs work together to improve the anticipated level of service or reduce costs. In addition, it included a so-called “sensitivity analysis,” that is, several targeted investigations of the transportation impacts of newly emerging land use developments not included in adopted regional forecasts and opportunities for operational applications such as reversible carpool/HOV lanes in locations where traffic has pronounced directional imbalances.

Finally, the sensitivity analysis examined the need for continuity in the system south of the I-5/SR-14 Interchange, through the I-5 “throat” where nearly all North County traffic must travel to reach the Los Angeles Basin. This section of the I-5 is particularly troublesome because of the

massive weaving movements that different streams of traffic must make to get from SR-14 and I-5 north to the I-210, the I-405, and the I-5 south. Lack of system redundancy is also a major issue in this section, which was severely damaged in both the 1971 Sylmar and 1994 Northridge earthquakes.

As a result of the integrated analysis and detailed sensitivity testing, an integrated multi-modal long-range corridors plan has now been developed to serve the long-range demands of the North County. Exhibit ES.2 shows the integrated long-

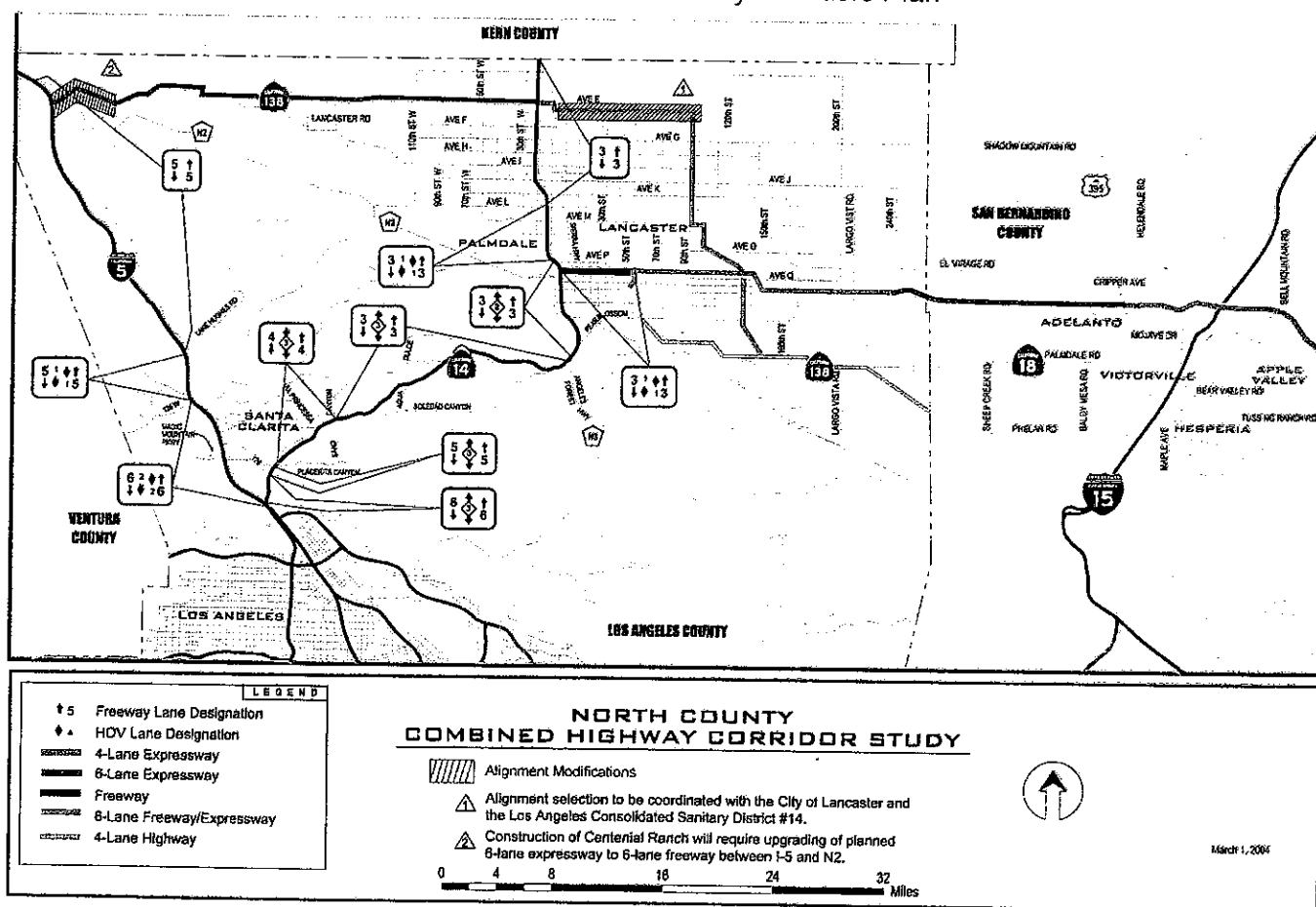
range roadway plan for the three North County Corridors. The combined recommendations will allow the three North County Corridors to function together in a seamless system to serve the diverse transportation needs in northern Los Angeles County. It includes the following items:

Long-Range Improvements

The SR-138 Plan, as modified for corridor integration includes:

- Widening existing SR-138 to four lanes from Pearblossom east to the SB County line.

Exhibit ES.2: North County Corridors Plan



- Construction of a limited access High Desert Corridor (HDC), a brand new freeway/expressway between I-5 and I-15. The east-west segment between SR-14 and I-15 would be an 8-lane freeway (including an HOV lane in each direction) from SR-14 past the Palmdale Airport to 50th Street East along an alignment paralleling P-8 in Palmdale; a 6-lane freeway/expressway from 50th Street East to 240th Street East; and a 4/6-lane expressway from 240th Street East past the planned Southern California Logistics Airport to I-15 and beyond. This new east-west route is the backbone of the proposed HDC, and will accommodate an expected three- to six-fold increase in traffic between the Antelope and Victor valleys. It will provide a new level of intra-valley accessibility and carry truck and other through traffic safely around existing communities.
- Between I-5 and SR-14, the HDC would be a 6-lane freeway or expressway along the current SR-138 alignment. This route would accommodate at least a doubling of traffic demand anticipated by 2025.
- A north-south HDC expressway would begin at SR-14 and Avenue D, jog south to Avenue E at the Old Sierra Highway, head south along 90th Street East, jog southeast to intersect with the east-west HDC at 126th Street East, and continue south to the existing SR-138 near 150th Street East. This north-south HDC expressway would complement SR-14 in carrying through traffic around the Palmdale and Lancaster communities.
- Transit service in the SR-138 study area would be expanded by 75 percent over the No Build (currently programmed) conditions. Three new express bus routes would be added between Palmdale/Lancaster and Victorville, and seven park-and-ride lots would be constructed.

The I-5 Plan, as modified for corridor integration includes:

- Doubling the current four lanes to a total of eight lanes in each direction between SR-14 and SR-126 West. Two of these lanes would be for HOVs, two lanes for trucks, and four

lanes for general use. The increase in the number of lanes would accommodate the forecast for a doubling of I-5 travel demand by 2025.

- North of SR-126 West, extend one new HOV lane to Lake Hughes and add a new truck lane to the existing four lanes in each direction.
- North of Lake Hughes to the Kern County Line, add a new truck lane in each direction to the existing four lanes.
- Transit service in the I-5 Corridor would be tripled with twice the number of train departures and three times the number of rail cars. Express bus departures in the peak would increase four-fold over programmed service.

The SR-14 Plan, as modified for corridor integration includes:

- Create three reversible HOV lanes (achieved by converting 2 existing HOV lanes and adding one new HOV lane) plus the existing 4/6 lanes in each direction between I-5 and Pearblossom. The three reversible lanes, designated for peak direction carpool and transit use, would effectively increase the capacity of the roadway by 50-75 percent while holding construction costs to minimum.
- Create two reversible HOV lanes (achieved by converting programmed HOV lanes) plus the existing/committed 3/4 lanes between Pearblossom and Avenue P. The reversible lanes would almost double roadway capacity in this section.
- Add a general-purpose lane between San Fernando Road and Sand Canyon.
- Add a truck lane from I-5 to Placerita Canyon.
- North of Avenue P, add one new lane to the two to three current lanes. The new lane would be designated for HOV use north to Avenue L and for general-purpose use from Avenue L to the Kern County line.
- Metrolink capacity would triple, with more departures and more cars in the peak hour. The plan includes a five-fold increase over



the number of express buses that operate today.

Short-Range Improvements

Short-range improvements (see Exhibit ES.3), emphasize right-of-way protection and implementation of key high priority early actions that address the most critical near-term bottlenecks as well as safety, operational, and connectivity needs.

SR-138

- Complete the work currently under way to improve SR-138 from one lane in each direction to two lanes in each direction from Avenue T to the San Bernardino County Line.
- Complete right-of-way acquisition along Avenue P-8 from SR-14 to 50th Street.
- Preserve the right-of-way needed to ultimately implement the proposed improvements identified for the long-range plan. This would include purchasing and preserving new right-of-way along:
 - Avenue E from I-5 to SR-14,
 - Avenue D from SR-14 to 90th Street East,
 - 90th Street East from Avenue D to Avenue M,
 - Avenue M from 90th Street East to 105th Street East,
 - 105th Street East from Avenue M to Avenue O,
 - A diagonal extending eastward from Avenue O to the new HDC,
 - Primarily 128th Street East from the new HDC to SR-138,
 - the new HDC alignment from SR-14 to US 395.
- Complete the work currently under way to construct the 4-lane expressway along the HDC from US 395 to the existing SR-18.

Interstate 5

- Add an HOV lane and a truck lane in each direction from the I-5/SR-14 interchange to Calgrove Boulevard.

- Add an HOV lane in each direction from Calgrove Boulevard to the I-5/126 separation.

SR-14

- Create three HOV reversible lanes (achieved by converting 2 existing HOV lanes and adding one new HOV lane) from the I-5/SR-14 interchange to Pearblossom Highway.
- Create two HOV reversible lanes (achieved by converting programmed HOV lanes) from Pearblossom Highway to Avenue P.
- Create three continuous mix flow lanes (2-3 existing plus 0-1 new lane) in each direction from Sand Canyon Road to Avenue P.

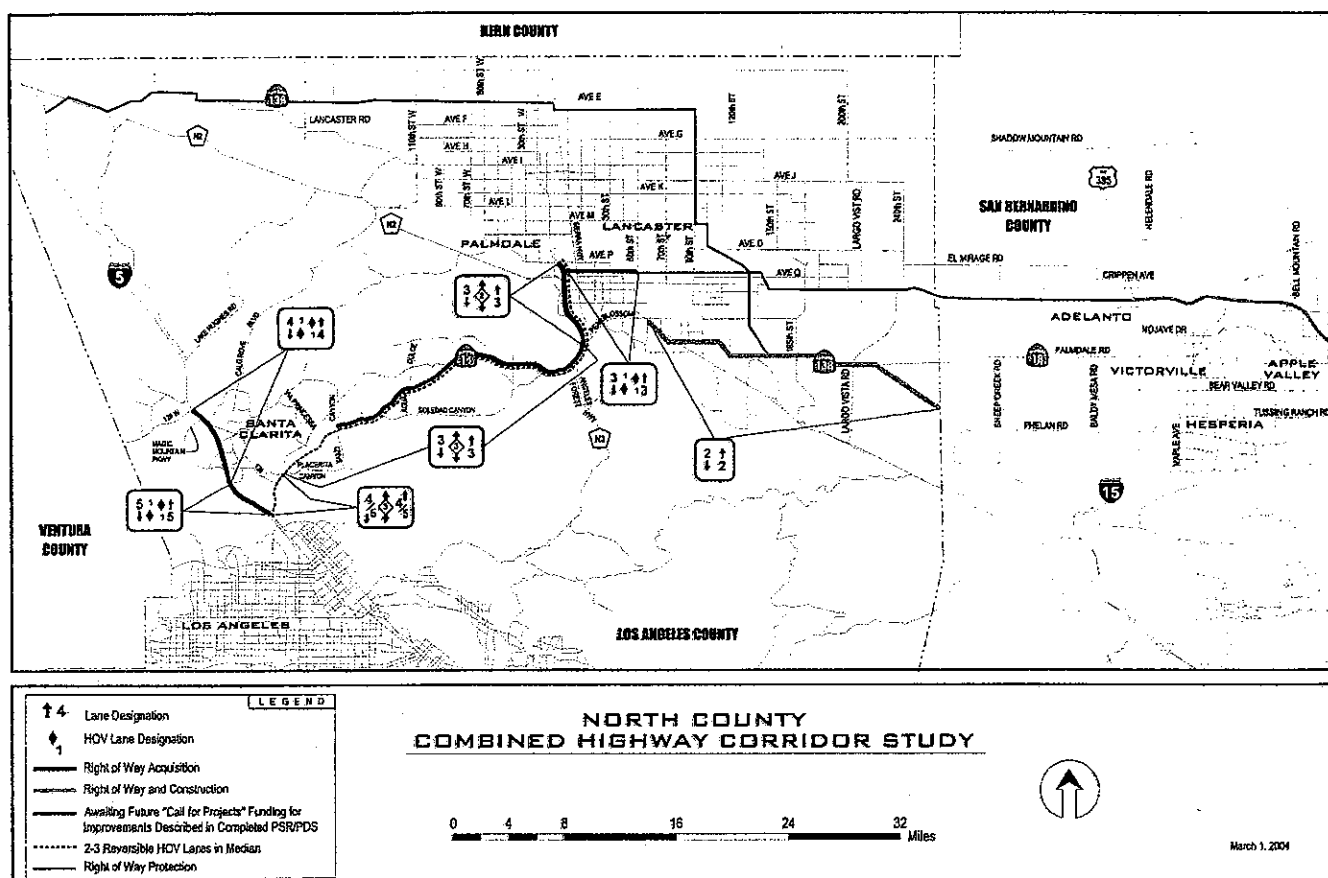
For the 2003 "MTA Call for Projects" the PSR/PDS approved for environmental review and preliminary design provided for 3 continuous mix flow lanes and one HOV lane and did not include the 2-3 reversible lanes between the I-5/SR-14 Interchange and Avenue P. The evaluation of the reversible lanes is proposed for inclusion as part of the subsequent PAED effort. A PSR/PDS update and a PEAR budget increase may be needed to address the modifications.

Future Corridor Analysis: I-5 South of SR-14

Extending I-5 Corridor improvements to the south through the I-5/SR-14 interchange and continuing down to the I-5/I-405 split is important to ensure the effectiveness of the I-5 Corridor investment. Sensitivity analyses for the I-5/SR-14 to I-5/I-405 segment, performed at a conceptual level, indicate substantial potential benefits to be derived from extending North County Corridors Plan improvements south along I-5 through the I-5/I-210 and the I-5/I-405 interchanges. Several promising proposals were identified for transportation service improvement along this segment of I-5, including:

- Added Truck Lanes – 1 new truck lane plus 2 existing truck lanes between SR-14 and I-210 and two new truck lanes from I-210 to I-405.
- Added HOV Lanes – 3 new HOV lanes plus one programmed HOV lane between SR-14 and I-405; to be operated as a reversible 4-lane HOV facility.

Exhibit ES.3: Short-Range Improvements, North County Corridors Plan



- Added Mixed Flow Lanes – 3 new mixed flow lanes plus 6 existing mixed flow lanes from SR-14 to I-210; 3 new mixed flow lanes plus 4 mixed flow lanes from I-210 to I-405; 3 of the mixed flow lanes could be operated as a reversible connector between SR-14 and I-405.
- Added Arterial Lanes Paralleling I-5 – 1 new reversible lane on Old Road/San Fernando Road/Sepulveda plus two existing lanes; 2 new lanes along Sepulveda and an extension paralleling I-5.
- Further detailed studies are needed to identify the feasibility of multi-modal improvements at this major regional choke point in the transportation system.

Future Corridor Analysis: New Land Development

Several major new developments were not included in the SCAG forecast data used for the corridor transportation alternatives analysis.

A sensitivity analysis quantified the impact of six development projects not in the SCAG database:

- Centennial Ranch – 23,000 homes and 30,000 jobs
- Newhall Ranch – 20,885 homes and 18,800 jobs
- Tejon Industrial Complex – 140 hourly truck trips
- Southern California Logistics Airport – 17,400 daily truck trips
- Palmdale Airport – 2,000 daily truck trips
- Sunshine Landfill – 60 hourly truck trips



The impacts of these six projects were identified and proposed mitigation measures were incorporated into the corridor plan recommendations.

Additional improvements must be considered as any additional new land developments or plan changes are proposed (e.g., mitigation for development). The North County multi-modal travel forecast model developed for the North County Combined Highway Corridors Study provides a useful tool for quantifying traffic impacts.

Cost and Finance

The North County Corridors Plan includes \$5.4 billion in major highway and transit investment along I-5, SR-14, and SR-138—approximately 250 miles of the most significant transportation facilities in northern Los Angeles County. Given the magnitude of the Corridors Plan, the financial strategy focuses on phased improvement, in which essential short-term transportation improvements are prioritized for expedited implementation, with longer term improvements implemented over an extended period, based on relative priority and funding availability.

The total cost of the projects in the North County Corridors Plan is approximately \$5.4 billion, of which \$4.8 billion is for highway-related improvements and \$0.6 billion is for transit. Of the \$4.8 billion in highway improvements, \$0.8 billion is for improvements in the I-5 Corridor, \$1.0 billion is for improvements in the SR-14 Corridor, and nearly \$3.0 billion is for improvements in the SR-138 Corridor. Estimated roadway costs are shown in five-year phases for all three corridors in Tables ES.2, ES.3, and ES.4.

Financial Strategy

The goals and objectives of the North County Corridors Plan played a critical role in the development of the short- and long-term transportation improvements. The financial strategy attempts to balance funding each corridor's need for immediate short-term improvements while planning for future congestion and related capacity and safety issues required as the North County region grows.

Given California's continuing budget shortfalls, the magnitude of capital costs, and the complexity of the projects, it will be a challenge to secure funding for the prioritized short-term projects ready for construction and for advancing additional studies still required for the long-term improvements. The ability to secure funding will depend on strong local support, effective advocacy at the state and federal levels, and creatively combining traditional and innovative funding sources and financing approaches.

I-5 Corridor

- To finance short-range improvements, North County cities and Caltrans are seeking MTA "Call for Projects" funding for short-range improvements for: (1) Extension of truck lanes north from the I-5/SR-14 interchange to Calgrove Avenue for increased safety and improved operations; (2) Extension of HOV lanes north from the I-5/SR-14 interchange to SR-126 West to encourage the use of transit and carpools in this increasingly congested area.
- As a contingency for funding short-range improvements, the Gateway Coalition and the city of Santa Clarita have asked the U.S. Congress for specific inclusion of I-5 as a recipient of "Corridors and Borders" funding under the pending federal reauthorization bill of the Transportation Equity Act for the 21st Century (TEA-21).
- The cities of Santa Clarita and Los Angeles and the County may obtain interchange impact fee contributions from developers through the subdivision process. The fees would be in proportion to the access benefits derived from the I-5 Corridor interchange improvements.

SR-14 Corridor

- To finance short-range improvements, North County cities and Caltrans are seeking MTA "Call for Projects" funding for: (1) Continuous three mixed-flow lanes from Sand Canyon to Avenue P to improve safety and operations (eliminating drop lanes); and (2) Conversion of the existing single HOV lane in each direction to 2/3 reversible HOV/transit lanes in the median.

Table ES.2: North County Corridor Plan, I-5 Corridor

Route	Roadway Type	Length (miles)	Number of Lanes Per Direction			Estimated Cost (2002, \$ Millions)		
			Existing/ Funded	Short Range Plan	Long Range Plan (LPS)	Short Range	Long Range	Corridor Total
SR-14 to Calgrove Ave.	Freeway	3.5	4	4+1 Truck + 1 HOV	4 + 2 Truck + 2 HOV	\$95*	\$67	\$162
Calgrove Ave. to SR-126 West	Freeway	6.5	4	4 + 1 HOV	4 + 2 Truck + 2 HOV	\$89*	\$148	\$237
SR-126 West to Lake Hughes Road	Freeway	4	4	4	4+1 Truck climb + 1 HOV	\$4	\$106	\$110
Lake Hughes Road to Kern County Line	Freeway	29	4	4	4+1 Truck climb	\$30	\$276	\$306
Total						\$218	\$597	\$815

*Project Approval and Environmental Document for completed PSR/PDS was submitted for funding within the 2003 "Call for Projects." Although the 2003 Call was cancelled, the application can be used for future Calls.

Table ES.3: North County Corridors Plan, SR-14 Corridor

Route	Roadway Type	Length (miles)	Number of Lanes Per Direction			Estimated Cost (2002, \$ Millions)		
			Existing/ Funded	Short Range Plan	Long Range Plan (LPS)	Short Range	Long Range	Corridor Total
I-5 to San Fernando Rd	Freeway	2	5+1 HOV	5+3 HOV*	5+3HOV* +1 Truck	\$23**	\$29	\$52
San Fernando Rd to Placerita Cyn	Freeway	1	3+1HOV	3+3 HOV*	4+3 HOV*+1 Truck	\$10**	\$7	\$17
Placerita Cyn to Sand Cyn	Freeway	5.3	3+1 HOV	3+3 HOV*	4+3 HOV*	\$56**	\$37	\$93
Sand Cyn to Pearblossom	Freeway	21	2/3+1 HOV	3+3 HOV*	3+3 HOV*	\$559**		\$559
Pearblossom to Avenue P	Freeway	7	2	3+2 HOV*	3+2 HOV*	\$175**		\$175
Avenue P to Avenue L	Freeway	4	3	3	3+1 HOV	\$5	\$32	\$37
Avenue L to Kern Co. Line	Freeway	11	2	2	3	\$8	\$84	\$92
Total						\$836	\$189	\$1025

* Reversible HOV lanes.
 ** Project Approval and Environmental Document for completed PSR/PDS was submitted for funding in the 2003 "Call for Projects." Although the 2003 Call was cancelled, the application can be used for future Calls. The completed PSR/PDS did not include 2-3 reversible HOV lanes conversion of 2 existing/programmed HOV lanes plus one new HOV lane) between I-5 and Avenue P. Evaluation of the reversible lanes is proposed for inclusion as part of the subsequent PAED effort. A PSR/PDS update and PEAR budget increase may be needed to address the modifications.

Table ES.4: North County Corridors Plan, SR-138 Corridor

Route	Roadway Type	Length (miles)	Number of Lanes Per Direction			Estimated Cost (2002, \$ Millions)		
			Existing/ Funded	Short Range Plan	Long Range Plan (LPS)	Short Range	Long Range	Corridor Total
SR-138								
Avenue T (Pearblossom Hwy) to I-15	Highway	36	2	2	2	\$253*		\$253
I-5 to SR-14**	Expressway	43	1	1	3	\$52	\$627	\$679
HDC E-W (Avenue P-8)								
SR-14 to 50th Street E	Freeway	5	---	3+1 HOV	3+1 HOV	\$238		\$238
50th Street E to US 395	Freeway/ Expressway	36	---	---	3	\$38	\$911	\$949
US 395 to I-15	Expressway	8	---	2	2	\$80		\$80
I-15 to SR-18	Expressway	14	---	2	2	\$142		\$142
HDC N-S								
SR-14 to HDC SR-138	Expressway	24.5	---	---	2	\$50	\$593	\$643
Total						\$853	\$2,131	\$2,984

* Includes approximately \$112 million currently programmed for SR-138 widening by Caltrans. The approximately \$101 million remaining was submitted for the 2003 "Call for Projects." Although the 2003 Call for Projects has been cancelled, the application can be used for future Calls.
 **Construction of Centennial Ranch would require upgrade of SR-138 to 6-lane freeway between I-5 and N2 (5 miles), not included in the Corridors Plan.

- Simultaneously, North County cities are asking the U.S. Congress to include SR-14 as a recipient of transportation demonstration funding under the reauthorization of TEA-21. The reversible HOV/transit lane element appears particularly promising for demonstrating methods of increasing corridor transport through a coordinated program of bus rapid transit, managed lanes (tolling of surplus lane capacity), carpooling, and park-and-ride facilities.
- North County cities and the County may obtain interchange impact fee contributions from developers through the subdivision process. The fees would be in proportion to the access benefits to be derived from the SR-14 Corridor interchange improvements.
- To obtain right-of-way, the North County cities are expected to obtain developer right-of-way dedication during approval of planned unit development (PUD) projects.
- Los Angeles County will protect right-of-way through the subdivision process to the extent legally appropriate.

SR-138 Corridor

- To finance short-range improvements, Caltrans and the North County cities are seeking MTA "Call for Projects" funding for widening SR-138 from two to four lanes from Avenue T/Pearblossom Highway to the San Bernardino County line.
- As a contingency for funding the SR-138 widening from Pearblossom to the San Bernardino County line, North County cities are expected to ask the U.S. Congress to include SR-138 widening as a recipient of funding under the reauthorization of TEA-21.
- Current constraints on existing tax revenue sources make conventional financing of a new High Desert Corridor (HDC) highway in Los Angeles County very challenging in this corridor. Existing funding sources are being focused on maintenance/operation of the existing highway and transit infrastructure.
- Alternatives to conventional MTA/Caltrans funding are envisioned for the HDC: (1) Local initiative, particularly for right-of-way

protection and acquisition; (2) Toll revenue finance through the SB 138 bill; and (3) Federal grants, particularly for cross-valley truck access.

- North County cities are expected to seek California Legislature approval of SB 138 to designate the future HDC as a possible toll road to be financed either publicly or privately.

Project Coordination

Recent progress by local jurisdictions includes:

I-5 Corridor

- North County cities have agreed to collaborate with the North County Transportation Coalition (NCTC), the Golden Gateway Coalition, or a Joint Powers Agency to pursue funding, project development, and design and construction to implement the I-5 Corridor Improvements.
- Working with Caltrans, the County, and North County cities, MTA prepared a Project Study Report/Project Development Support (PSR/PDS) document defining the initial implementation target for the corridor: HOV lanes north to SR-126 West and truck lane extension north to Calgrove Avenue (March 2003). This document supports requests through MTA and Caltrans for funding the next step in project development: project approval and environmental documentation.
- Local leaders are working with their U.S. Congressional Representative to include a \$200-million demonstration grant under the TEA-21 reauthorization for short-range HOV and truck lanes.
- The Santa Clarita General Plan is being amended to incorporate corridor improvements as part of its Official Map, require developers to dedicate right-of-way along the alignment—particularly at interchanges—and limit cross-street access to facilitate future freeway widening and separation of truck lanes from the freeway mainline.

SR-14 Corridor

- North County cities have agreed to collaborate with the North County Transportation Coalition (NCTC), the Golden Gateway Coalition, or a Joint Powers Agency to pursue funding for project development, design and construction to implement the SR-14 Corridor Improvements.
- Working jointly with Caltrans, the County, and North County cities, MTA prepared a PSR/PDS document defining the initial implementation target for the corridor: eliminating lane drops in the 2/3 lanes of mixed flow in each direction from Sand Canyon to Avenue P (March 2003). This document supports requests through MTA and Caltrans for funding the next step in project development: project approval and environmental documentation.
- MTA, with Caltrans, North County cities, and the County, is prepared to supplement the corridor lane drop PSR/PDS to include 2/3 reversible HOV/transit lanes from I-5 to Avenue P.
- Local leaders are working with their U.S. Congressional Representative to include an \$800-million demonstration grant under the TEA-21 reauthorization for the reversible HOV/transitway project.
- North County cities General Plans are being amended to incorporate corridor improvements as part of their Official Map, require developers to dedicate right-of-way along the alignment, and limit cross-street access to facilitate future freeway widening.

SR-138 Corridor

- Palmdale and Caltrans are working with the Los Angeles World Airport (LAWA), the owner of Palmdale Airport, and other property owners in acquiring right-of-way along the HDC alignment between SR-14 and 50th Street East.

- The Palmdale and Lancaster General Plans incorporate the HDC alignment as part of their Official Map, requiring developers to dedicate roadway right-of-way along the alignment in proposed urban development areas.
- Los Angeles County will show the HDC alignment for information purposes on its Highway Plan.
- Planned unit developments within the North County cities and the County will be required to be compatible with the future HDC alignment and access control.
- State legislation to authorize development of the HDC as a toll road (SB 138) was introduced during the 2003 legislative session. The legislation is expected to be resubmitted during the next legislative session. Public or privatized toll revenue financing has proven successful in California and elsewhere to fund, in whole or in part, new roadway construction;
- Local leaders are working with their U.S. Congressional Representative to include a \$1-billion demonstration grant under the TEA-21 reauthorization for the HDC.

Regional Planning

The North County Combined Highway Corridors Study, although facilitated by MTA, is driven by local initiative and consensus. SCAG and the MTA may not fully concur with all study recommendations. SCAG recently included updates to its Long-Range Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP) that do not reflect study recommendations. Similarly, MTA identified both Long-Range and Short-Range Transportation Plans for Los Angeles County which include seven priority projects identified by Mobility 21, a forum sponsored by MTA for the past two years. Including high-priority North County projects is envisioned in future SCAG and MTA regional plan updates to complement regional priorities already adopted.

CHAPTER 1: CORRIDOR PLANNING PROCESS

Overview

In August 2001, the North County Combined Highway Corridors Study was initiated to develop a multi-modal transportation plan for the northern portion of Los Angeles County, addressing both short-term (2010) and long-term (2025) requirements to accommodate a variety of trip purposes, including personal travel (highways and transit) and goods movement (trucks) within and through the study area.

The North County Combined Highway Corridors Study was conducted by the Los Angeles County Metropolitan Transportation Authority (MTA) in cooperation with the cities of Lancaster, Los Angeles, Palmdale, and Santa Clarita and the County of Los Angeles. For approximately two and a half years, a Technical Advisory Committee (TAC), composed of representatives of the sponsoring agencies, Caltrans, the Southern California Association of Governments (SCAG), and the Federal Highway and Transit Administrations, met monthly to review progress of the Study. The North County Transportation Coalition, composed of elected officials from the County, North County cities, and the California State Legislature, provided policy oversight for the study.

Reflecting its geographic focus and the character of trips made through, from, and to the Study Area, the North County Combined Highway Corridors Study was conducted in two phases. The first phase (Part I), completed in January 2003, focused on the I-5 and SR-14 Corridors. Part I examined transportation issues on the I-5 and SR-14 Corridors and examined the need for north-south circulation through the Study Area, connecting corridor communities southward to the San Fernando Valley and Los Angeles Basin, and northward to the Kern County Line. Part II of the study began in April 2002 and was completed in December 2003. It focused on east-west circulation along the SR-138 Corridor (and possible alternatives thereto) that connect the Antelope Valley and Victor Valley and can provide alternatives to congested travel through

the Los Angeles Basin for interregional goods movement.

North Los Angeles County Study Area

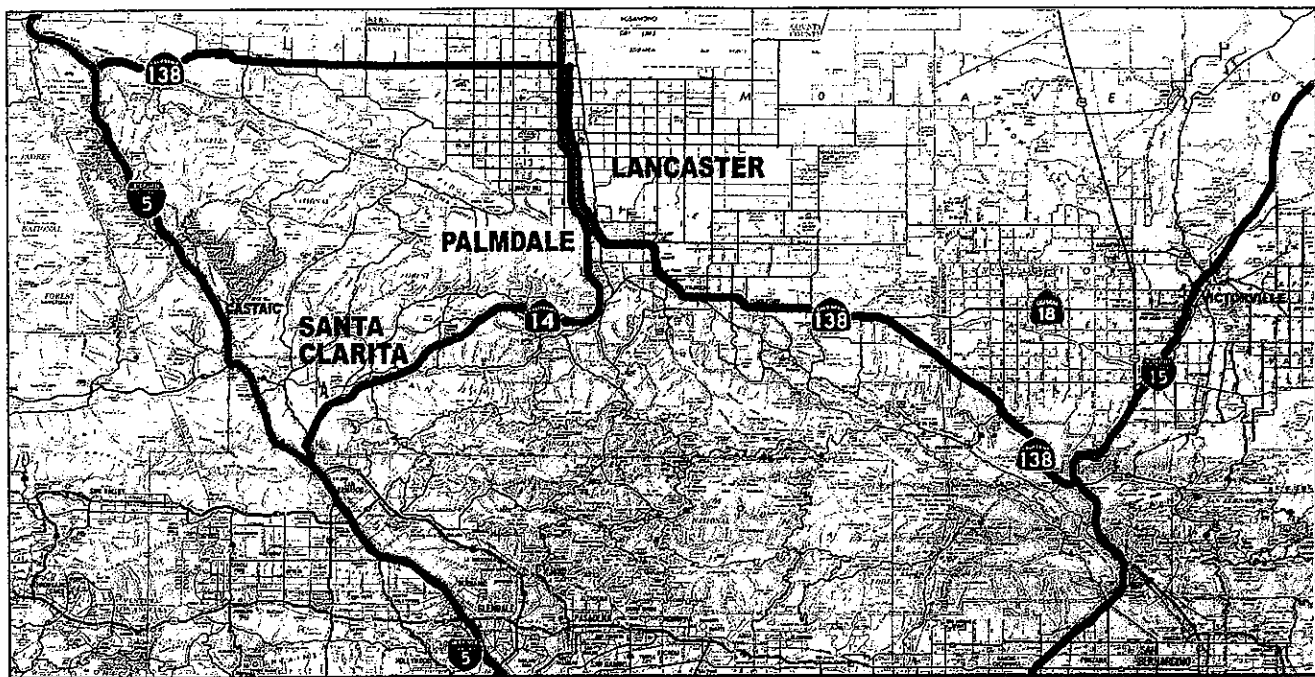
The North Los Angeles County Corridors Study Area (see Exhibit 1.1) includes the high-growth Santa Clarita Valley and Antelope Valley communities (Santa Clarita, Palmdale, and Lancaster) that provide affordable housing for commuters traveling south on congested routes into the relatively job-rich San Fernando Valley and the Los Angeles Basin.

The study area also encompasses a large area of unincorporated Los Angeles County that contains much rural area and many small towns such as Pearblossom, Littlerock, Lake Los Angeles, and Liano. The two primary north-south corridors (I-5 and SR-14) are physically constrained by terrain and, in some cases, by development along freeway segments. An underdeveloped roadway network within the study area also serves east-west travel, primarily via SR-138.

RSTIS Long-Range Planning Process

The North County Combined Highway Corridors Study process followed a long-range planning process that conforms to the traditional Major Investment Study (MIS) flow of tasks, although the MIS process has been replaced in the SCAG region by the Regionally Significant Transportation Investment Study (RSTIS) process (see box on page 2). Like the MIS, the RSTIS focuses on building consensus and proactively involving the public from the early stages of project initiation through the final selection of locally preferred alternatives. RSTIS introduces the project to environmental review agencies as well as the public, and initiates coordination and public involvement activities that continue throughout the project development and evaluation. It is a collaboration between all stakeholders, designed to produce a range of alternatives in response to mobility needs and problems, and in this study included additions

Exhibit 1.1: North County Study Area Map



EVOLUTION OF A PROCESS:

The Major Investment Study (MIS) Becomes the SCAG Regionally Significant Transportation Investment Study (RSTIS)

As a precondition for federal funding of transportation infrastructure within urban areas, the Federal Highway Administration/Federal Transit Administration (FHWA/FTA) require participatory, long-range, multi-modal planning of major transportation corridors designed to ensure that all feasible, cost-effective mobility options are considered by the public and technical experts before investing significant funds on large-scale and usually costly projects. In turn, the SCAG, the federally designated Metropolitan Planning Organization (MPO), has mandated an RSTIS in the North County Combined Highway Corridor, including the I-5, SR-14, and SR-138 highways.

Previously, under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), high-capacity, federally funded highway and transit projects were required to undergo a Major Investment Study (MIS). However, pursuant to 1996 transportation omnibus bill TEA-21, this requirement for a stand-alone MIS document was eliminated. Currently pending USDOT planning rules that are proposed to replace the MIS process will require that the content of the former MIS process be reflected in the new planning and project development (NEPA linkage) process. In the interim period prior to adoption and implementation of the new federal rules, the SCAG has developed an alternative process to accomplish the necessary interagency coordination and public involvement activities previously subsumed under the MIS process. SCAG now views the RSTIS as the process to be used to refine or update the Regional Transportation Plan for specific projects. SCAG has developed general guidelines to provide an overall framework describing how to conduct a RSTIS. Federal guidance and the RSTIS process stress flexibility in developing an RSTIS review. Specific project circumstances dictate the scoping elements to be included to ensure that planning and interagency coordination are achieved.

to general-purpose freeway lanes, high-occupancy vehicle (HOV) lanes, express bus and rail transit, and truck and climbing lanes. Both existing and new alignments were explored in

various configurations in an effort to meet projected travel demand and to sustain and support economic vitality in northern Los Angeles County. The process provides for the

documentation of successive phases of technical and political evaluation, screening of possible transportation scenarios, and final selection of locally preferred alternatives.

Corridor Planning Process

The North County Combined Highway Corridors Study was initiated in August 2001 to prepare a multi-modal transportation plan for the northern portion of Los Angeles County; it addresses both short-term (2010) and long-term (2025) travel requirements on I-5, SR-14, and SR-138. Major emphasis was on preparing documentation that will facilitate implementation of an early action plan to provide an additional freeway capacity (general-purpose and carpool lanes) along segments of I-5 and SR-14, completing safety and capacity improvements on SR-138, and meeting federal and state requirements for funding of the longer term transportation projects identified as locally preferred strategies.



The planning process for both parts of the North County Combined Highway Corridors Study was organized into the four steps shown in Exhibit 1.2: (1) scoping; (2) initial concept development; (3) alternatives evaluation; and (4) corridor plan preparation. At the end of each step and before beginning the next, study findings were presented to the public for review and comment. Public and stakeholder comments received during these strategically timed review periods guided technical and policy representatives and the consultant in each subsequent work effort.

Step one (scoping) provided for technical and community definition of existing and future mobility problems, issues, and deficiencies, as well as performance criteria to be used later in evaluating possible transportation improvement scenarios. Step two established preliminary

strategies that represented the broadest possible range of solutions for highway, transit, and goods movement problems identified in Step one. Parts I and II of the study then entered Step three, which ultimately yielded smaller sets of system transportation scenarios that were evaluated in more detail using a variety of available analytical tools and models. Based on these analyses, the final set of system alternatives for each study phase was formally screened and the study TAC established a preferred system alternative (called the locally preferred strategy, or LPS) for both parts of the study. The LPSs for Parts I and II represent a consensus on what constitutes the greatest benefits and the most cost-effective set of elements for the North County region. Step four included formal public input on the integrated final set of alternatives for Parts I and II at workshops held in March 2004 and concludes with the preparation of this document.

The corridor planning process was fully coordinated with MTA and SCAG regional short- and long-range planning. Regional plan elements provided the baseline for alternatives evaluation. Throughout the Corridors Study, recommendations were reviewed for compatibility with MTA and SCAG planning objectives. When the corridor planning process is completed, the North County Corridor Plan is expected to become part of MTA and SCAG plans for the larger region.

Milestone Reports

Although a similar process was followed for both Part I and Part II of the study, the report titles and packaging of some of the study components differ slightly. The differences are illustrated in Table 1.1, which summarizes the study's major reports.

Exhibit 1.2: North County Combined Highway Corridors Study Planning Process

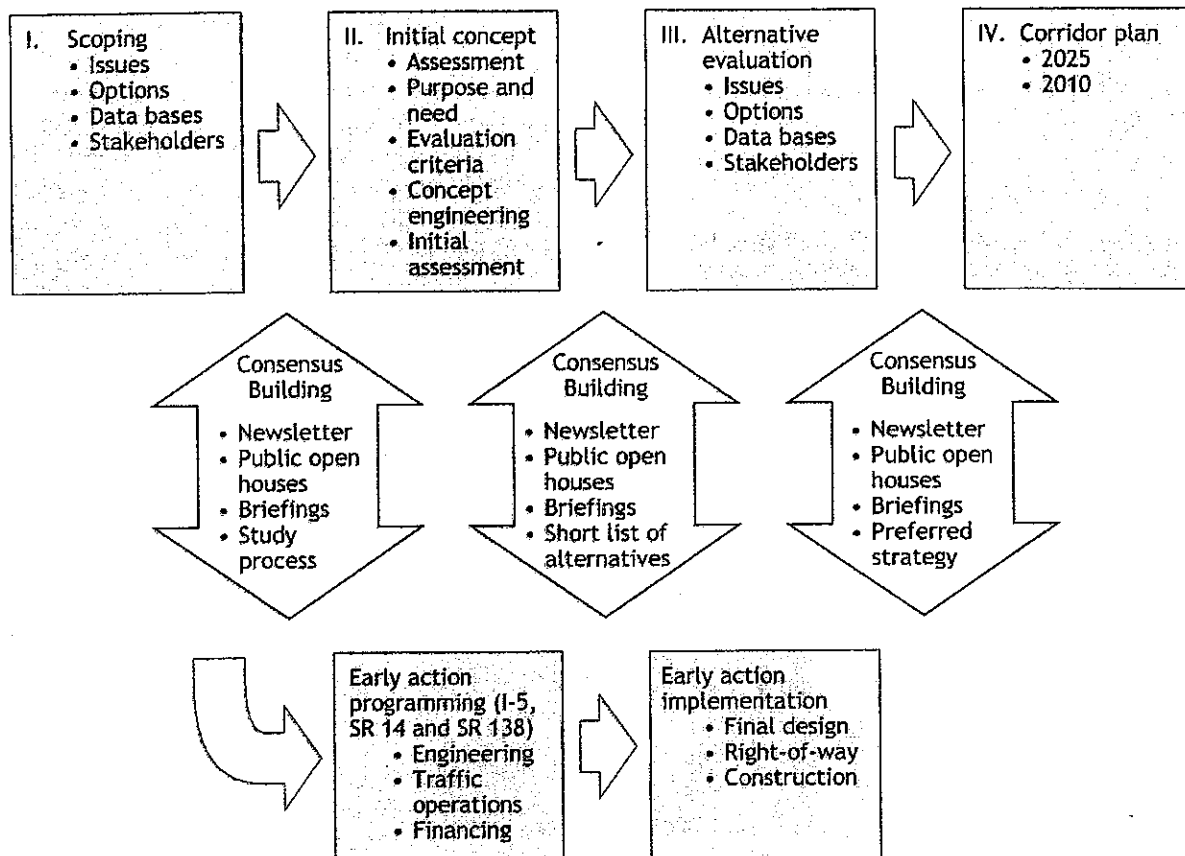


Table 1.1: Major Milestone Reports

Part I Documents (I-5/SR-14)	Part II Documents (SR-138)
Scoping Plan and Community Outreach and Public Participation Plan (October 2001)	Community Outreach and Public Participation Plan (July 2002)
Final Scoping Report (February 8, 2002)	Purpose and Need Statement (November 2002)
Purpose and Need Report (March 5, 2002)	Existing and Future Conditions Final Report (March 2003)
Corridor Analysis Alternatives Evaluation Report: Volume 1 (July 30, 2002)	Final Alternatives Development and Screening (December 2003)
Corridor Analysis Alternatives Evaluation Report: Volume 2 (February 6, 2003)	Draft Final Report, SR-138 Corridor Study (November 26, 2003)
Project Study Report/Project Development Support (PSR/PDS) for I-5 between SR-14 and SR-126	
Project Study Report/Project Development Support (PSR/PDS) for SR-14 between Sand Canyon and Avenue P	
Financial Strategies for the Integrated I-5/SR-14/SR-138 Corridor Plan (February 2004)	
North County Combined Highway Corridors Study Final Report (This Document, April 2004)	

CHAPTER 2: AGENCY AND PUBLIC INVOLVEMENT

Developing and implementing a proactive outreach effort that engaged ongoing, substantive input from key decision-makers, including both the impacted community and public agencies, was critical in building consensus around the final North County Corridors Plan. Using venues that ranged from monthly TAC meetings and regularly scheduled policy oversight group briefings to public open houses and stakeholder group presentations at important project milestones, the outreach effort sought to be inclusive, visible and to maximize participation.

The outreach effort included stakeholders from local and regional agencies, elected and public officials from impacted communities, cities and rural town councils, business and civic groups, homeowner associations, local media, and interested individuals.

Driving the agency and public involvement effort was the desire to share information with project stakeholders and to receive their feedback at regular junctures and/or at key milestones, identify and address their issues of greatest concern, and integrate their feedback into the process. This effort produced a consensus across a broad spectrum of stakeholders.

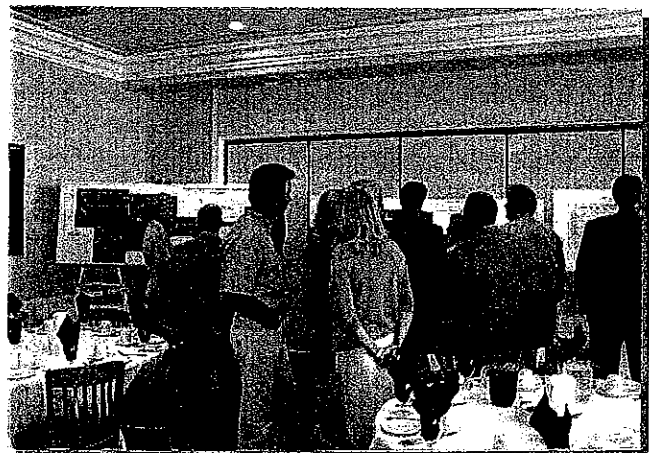
Technical Advisory Committee

A collaborative and cooperative multi-agency process was facilitated by a North County Combined Highway Corridors Study TAC that was formed by the MTA to guide technical oversight of the Study based on their regional perspectives. The TAC was composed of representatives from the following agencies:

- Los Angeles County Metropolitan Transportation Authority (MTA)
- Federal Highway Administration (FHWA)
- Federal Transit Administration (FTA)
- California Department of Transportation (Caltrans), Districts 7 and 8
- California Highway Patrol (CHP)
- Southern California Association of Governments (SCAG)

- San Bernardino Associated Governments (SANBAG)
- Office of Los Angeles County Supervisor Mike Antonovich
- Los Angeles County Department of Public Works
- San Bernardino County
- City of Lancaster
- City of Palmdale
- City of Santa Clarita
- City of Los Angeles World Airports (LAWA)
- City of Los Angeles Department of Transportation (LADOT)
- Automobile Club of Southern California (AAA)
- Antelope Valley Air Quality Management District (AVAQMD)
- Parsons Transportation Group (PTG), lead consultant for the North County Combined Highway Corridors Study, and its various subconsultants

On occasion, TAC meetings were attended by additional stakeholders including representatives from the rural town councils, school districts, developers, and the West Mojave Plan. At critical milestones, special all-day TAC workshops were also convened to address specific decisions.



TAC members were invited to participate in all community open houses to hear first-hand public reaction to the Study. In this way, they were able to report back to their own agencies and, at the

same time, interact with the public to hear their thoughts directly.

The TAC met monthly throughout the two and half year duration of the Study to monitor its progress, review and comment on the technical products developed, and ensure that a comprehensive and sound technical analysis was completed. This process also ensured that the TAC reached consensus on the Study every step of the way.

Project Development Team (PDT) for PSRs/PDSs

Conceptual studies called Project Study Reports/Project Development Supports (PSRs/PDSs) were developed for the two sets of high-priority short-term improvements identified by stakeholders along I-5 and SR-14. These PSRs/PDSs are engineering documents used to program the support costs needed to conduct preliminary engineering and clear the projects environmentally for the subsequent design and construction phases. They include engineering plans and various technical studies used to develop a range of capital and support costs for the various alternatives under consideration.

These I-5 and SR-14 PSRs/PDSs were funded by the MTA and prepared by its project team, which coordinated closely with Caltrans and developed the PSRs/PDSs in accordance with Caltrans guidelines.

The development process for the PSRs/PDSs involved forming a Project Development Team (PDT) that included technical staff from Caltrans, representatives from Metro and the consultant team, and members of the TAC. An initial PDT meeting was held to kick off the study and secure consensus on the scope, purpose, and need for the projects. Follow-up PDT meetings were held to provide ongoing oversight and quality assurance. The first follow-up meeting involved discussing technical matters and understanding

Caltrans expectations. The second follow-up meeting occurred after the initial drafts were submitted and served as a review of the documents to ensure they adhered to Caltrans quality standards. The third and last follow-up meeting involved addressing and resolving technical issues, and making final preparations for submittal and signature of the PSRs/PDSs.

The project team successfully completed the two PSRs/PDSs in March 2003.

Policy Oversight Committee

The North County Transportation Coalition (NCTC), the region's *de facto* Council of Government (COG), served as the Policy Oversight Committee (POC) for the North County Combined Highway Corridors Study. NCTC comprises 12 members—three each from the cities of Lancaster, Palmdale, and Santa Clarita, respectively—an elected official, a city staff member, and a representative of the general public.

MTA staff and members of the project team briefed the NCTC (in its function as POC) at key project

milestones and decision points, received input from its members, and received the green light to proceed at critical junctures throughout the study. MTA staff and members of the project team attended approximately 10 NCTC meetings during the course of the Plan development.

A final NCTC briefing meeting was held in April 2004, and the project team received formal approval for the integrated North County Corridor Plan.

Public Outreach

The North Los Angeles County region, which encompasses the cities of Lancaster, Palmdale, and Santa Clarita and large portions of rural unincorporated Los Angeles County, presented some unique public outreach challenges and opportunities. The region is geographically diverse; therefore, the outreach effort had to both reflect coverage and take into consideration

